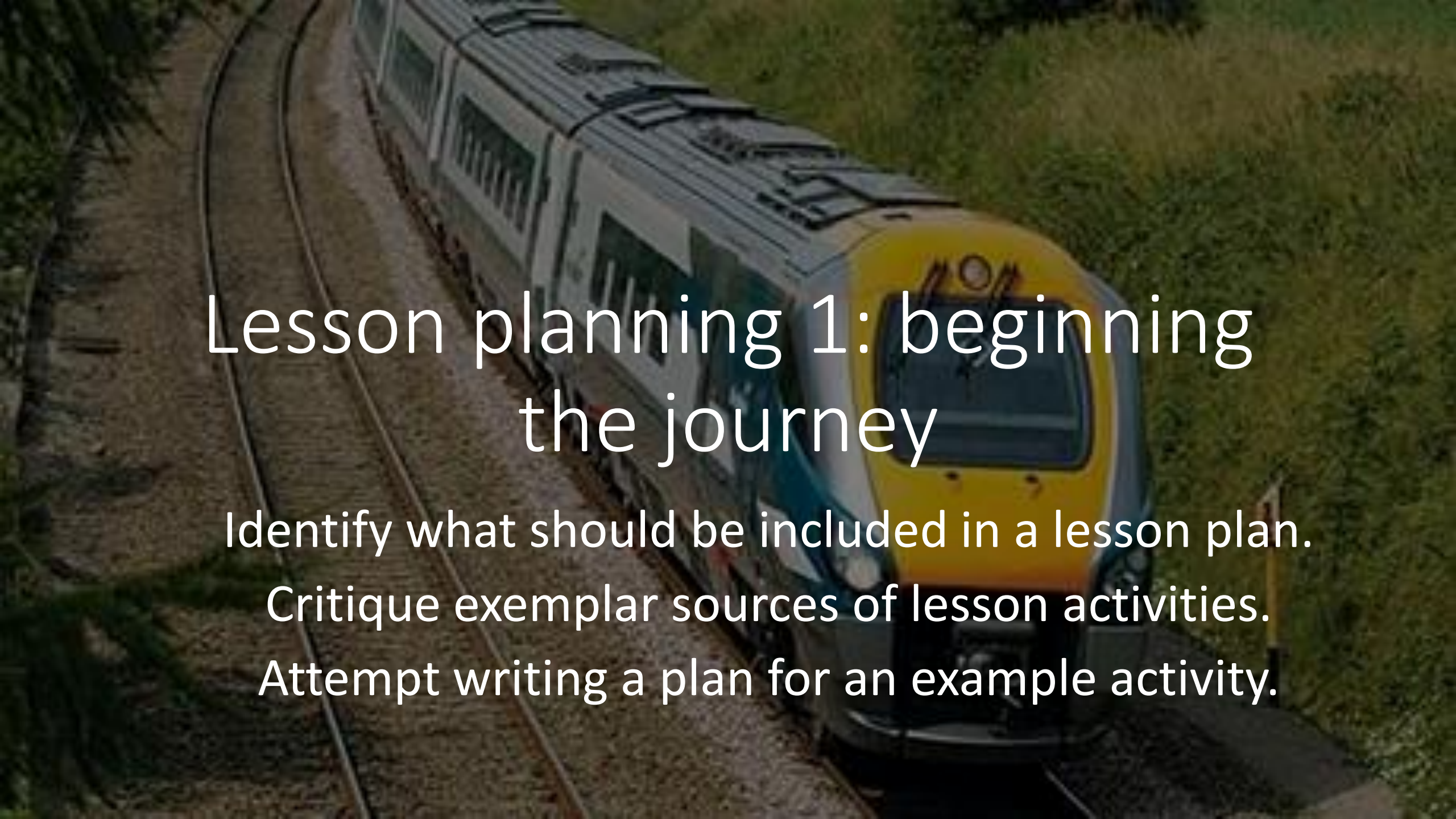


Lesson planning 1: beginning the journey

Identify what should be included in a lesson plan.

Critique exemplar sources of lesson activities.

Attempt writing a plan for an example activity.

Lesson planning mechanics and practice 1 Links to the CCF

- Learn that

- TS4 Guides, scaffolds and worked examples can help pupils apply new ideas, but should be gradually removed as pupil expertise increases.
- Explicitly teaching pupils metacognitive strategies linked to subject knowledge, including how to plan, monitor and evaluate, supports independence and academic success.

Learn how to

TS4: Including a range of types of questions in class discussions to extend and challenge pupils (e.g. by modelling new vocabulary or asking pupils to justify answers).

Starter: This is an activity for students to think about as they enter the room

- Where does the balance lie between time taken to Plan a lesson vs teach a lesson
- Where does the balance lie between what you expect the student to do and what you as a teacher to do?
- Are these fixed entities? Discuss

Where does the balance lie?

Teaching

Planning

Where does the balance lie in the lesson?

- Pupil led

Teacher led

St Mary's lesson plan

Date	Time	Class/Set	Lesson No	No. in class	Room

Your targets from weekly training meeting relevant to this lesson

Background of the class context of your teaching and learning plan and your expectations	
Targeted Support:	Additional Adults:

Relevant Curriculum Statements

Pre-supposed knowledge / Possible Concepts / Misconceptions / Alternative Ideas

Learning points:
•

- Time of day:

This dictates the style of activity you will do.

Class/ set will dictate the working scientifically statements or detail of subject knowledge.

The size of the room may impact the style of activity you will use. E.g. practical

The St Mary's lesson plan.

Date	Time	Class/Set	Lesson No	No. in class	Room

Your targets from weekly training meeting relevant to this lesson

Background of the class context of your teaching and learning plan and your expectations

Targeted Support	Additional Adults

Relevant Curriculum Statements

Pre-supposed knowledge / Possible Concepts / Misconceptions / Alternative Ideas

Learning points:

- What is the key knowledge you want the students to develop?

SEND and differentiation What will you do for these students?

If you are lucky enough to have them, how will they be used?

Taken from the specification you are teaching. What do you want to cover in the lesson?

Existing ideas that students may have from KS2/KS3. What misconceptions do/may the students hold.

Teacher and student activities

Time	**Teacher Activity** What are you doing? Additional adults in room?	**Pupil Activity** What are the pupils doing? **Evidence of progress? Refer to Learning Points.**
	What will you do in each stage of the lesson?	What will the pupils do in each stage of the lesson?
	-	
	.	

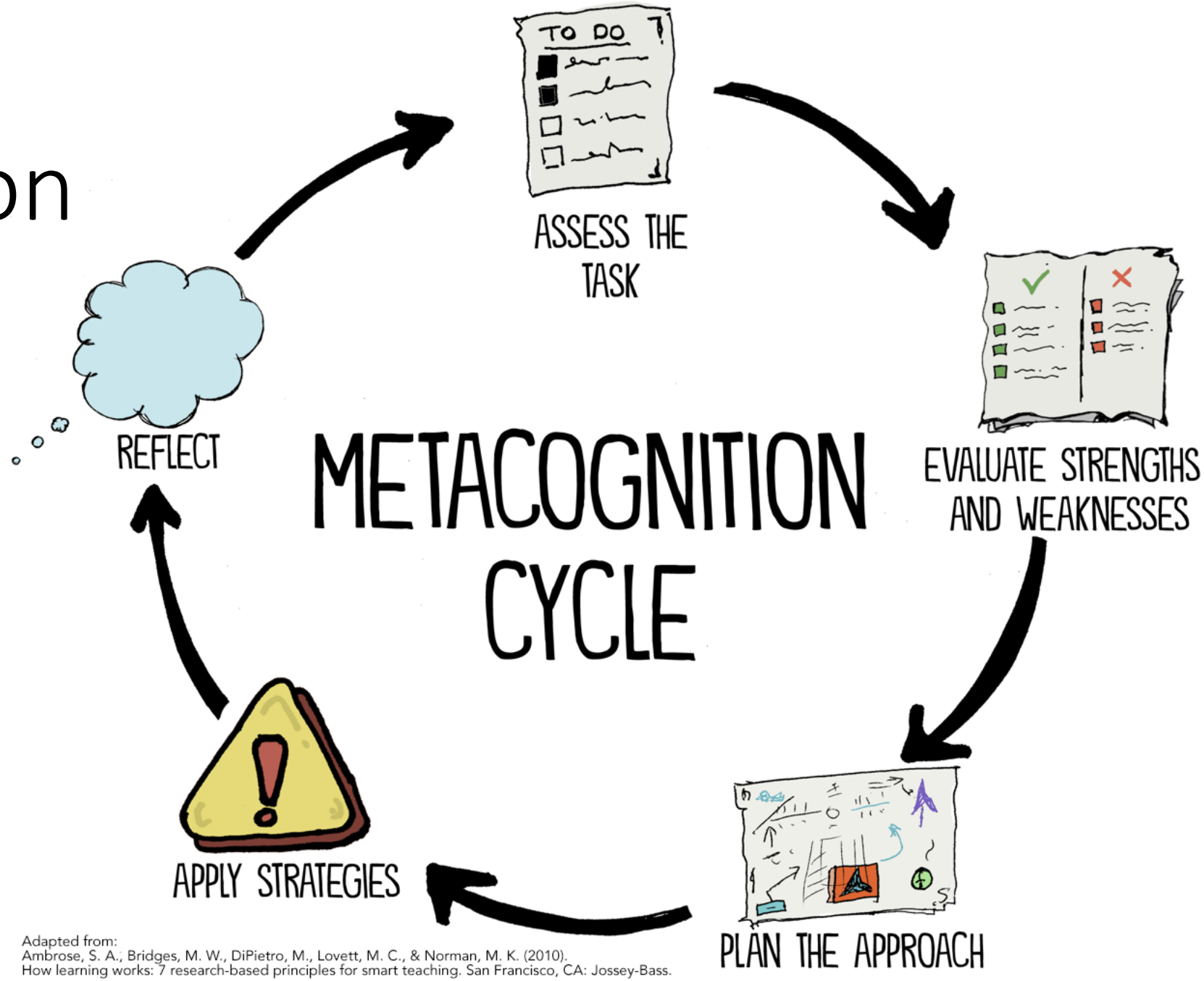
Metacognition a definition

- Metacognition is defined as thinking about thinking or learning about learning (EEF 2017). They utilise group tasks to encourage learners to evaluate their learning experience and proactively plan strategies to develop their learning further.

- Metacognitive strategies support teachers to model their own thinking process and develop a growth mindset in students.

The metacognition cycle

Metacognition is essential to promote self reliance and resiliency. It is found to be particularly effective in science and Maths.



Adapted from:
Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010).
How learning works: 7 research-based principles for smart teaching. San Francisco, CA: Jossey-Bass.

Metacongition the seven step model

- https://d2tic4wvo1iusb.cloudfront.net/eef-guidance-reports/metacognition/Seven_step_model_1.0.pdf?v=1644475400

Exemplar metacognitive strategies

Technique	Description
1. Elaborative interrogation	Generating an explanation for why an explicitly stated fact or concept is true
2. Self-explanation	Explaining how new information is related to known information, or explaining steps taken during problem solving
3. Summarization	Writing summaries (of various lengths) of to-be-learned texts
4. Highlighting/underlining	Marking potentially important portions of to-be-learned materials while reading
5. Keyword mnemonic	Using keywords and mental imagery to associate verbal materials
6. Imagery for text	Attempting to form mental images of text materials while reading or listening
7. Rereading	Restudying text material again after an initial reading
8. Practice testing	Self-testing or taking practice tests over to-be-learned material
9. Distributed practice	Implementing a schedule of practice that spreads out study activities over time
10. Interleaved practice	Implementing a schedule of practice that mixes different kinds of problems, or a schedule of study that mixes different kinds of material, within a single study session

Note. See text for a detailed description of each learning technique and relevant examples of their use.

Donker, A. S., de Boer, H., Kostons, D., Dignath van Ewijk, C. C., & van der Werf, M. P. C. (2014) Effectiveness of learning strategy instruction on academic performance: A meta-analysis. *Educational Research Review*, *11*, 1–26. https://doi.org/10.1016/j.edurev.2013.11.002. (Table taken from p6)

Effectiveness of metacognitive strategies

Table 4. Utility Assessment and Ratings of Generalizability for Each of the Learning Techniques

Technique	Utility	Learners	Materials	Criterion tasks	Issues for implementation	Educational contexts
Elaborative interrogation	Moderate	P-I	P	I	P	I
Self-explanation	Moderate	P-I	P	P-I	Q	I
Summarization	Low	Q	P-I	Q	Q	I
Highlighting	Low	Q	Q	N	P	N
The keyword mnemonic	Low	Q	Q	Q-I	Q	Q-I
Imagery use for text learning	Low	Q	Q	Q-I	P	I
Rereading	Low	I	P	Q-I	P	I
Practice testing	High	P-I	P	P	P	P
Distributed practice	High	P-I	P	P-I	P	P-I
Interleaved practice	Moderate	I	Q	P-I	P	P-I

Note: A positive (P) rating indicates that available evidence demonstrates efficacy of a learning technique with respect to a given variable or issue. A negative (N) rating indicates that a technique is largely ineffective for a given variable. A qualified (Q) rating indicates that the technique yielded positive effects under some conditions (or in some groups) but not others. An insufficient (I) rating indicates that there is insufficient evidence to support a definitive assessment for one or more factors for a given variable or issue.

Donker, A. S., de Boer, H., Kostons, D., Dignath van Ewijk, C. C., & van der Werf, M. P. C. (2014) Effectiveness of learning strategy instruction on academic performance: A meta-analysis. *Educational Research Review*, *11*, 1–26. https://doi.org/10.1016/j.edurev.2013.11.002. (Table taken from p45)

Critique the exemplar lesson plans

- On each lesson plan identify where you see:

- Models yellow post it note
- Engaging activities/practicals green post it note
- How pupils learn- learner identity purple post it note
- Misconceptions (Orange post it note)
- Observable metacognitive strategies (Blue post it note).

At the end of each activity you will be asked to justify your thinking.

Building on previous lectures: Sequencing learning and retrieval practice

Lecture	How is the pedagogic approach introduced into lesson plans? In which plan(s) is the pedagogic strategy evident?	Critique/reflections
Models		
Purposeful practicals		
How pupils learn learner identity		
Misconception		
Metacogntion		

What are your take-aways from today's session? How are you feeling about planning lessons?

Linked references for the session

- Donker, A. S., de Boer, H., Kostons, D., Dignath van Ewijk, C. C., & van der Werf, M. P. C. (2014) Effectiveness of learning strategy instruction on academic performance: A meta-analysis. *Educational Research Review*, *11*, 1–26. https://doi.org/10.1016/j.edurev.2013.11.002.

- Education Endowment Foundation (2017) Metacognition and Self-regulated learning Guidance Report. [Online] Accessible from: https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/metacognition

- Education Endowment Foundation (2018) Improving Secondary Science Guidance Report. [Online] Accessible from: https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/science-ks3-ks4

- Also available on the science section of the Moodle pre reg site.